

In the claims:

1. (Previously presented) A self-calibrating, disposable blood test device comprising:

a substrate configured for carrying a chemical reagent; and  
circuitry formed on the substrate, the circuitry comprising:

a sensor portion associated with the chemical reagent to enable measurement of at least one of a presence and a concentration of a blood analyte;

an information storage portion configured to store information indicative of at least one calibration value of the chemical reagent for calibrating operation of a meter to accurately measure and monitor a test of the blood analyte; and

an input and output arrangement formed on the substrate and in electrical communication with the information storage portion to enable the meter to access the at least one calibration value from the information storage portion;

wherein no other source of calibration information separate from the information storage portion on the disposable blood test device is used for calibration of the meter;

wherein the information storage portion is electrically connected to a portion of the sensor portion of the circuitry and includes at least one electrically conductive element including a plurality of impedance elements, each impedance element being configured to be physically altered by at least one of punching, drilling, and shorting via fusible link and a number,  $N$ , of the impedance elements in a determinable order producing characteristic impedance that is indicative of the at least one calibration value of the chemical reagent, the  $N$  impedance elements producing  $2^N$  different possible calibration values; and

wherein the plurality of impedance elements includes at least one of: a plurality of inductors arranged in series or a plurality of capacitors arranged generally in parallel; the plurality of inductors, the plurality of capacitors or a combination thereof all being arranged between a portion of the sensor portion and an input and output conductive element of the information storage portion.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously presented) The test device of claim 1, wherein the test device comprises one of a set of test devices with the information storage portion of each test device storing substantially the same information in the information storage portion to be indicative of the at least one calibration value of the chemical reagent for the set of test devices.

8. (Original) The test device of claim 1, wherein the circuitry of the substrate comprises a semiconductor portion and the circuitry defines a non-volatile memory configured to store the information.

9. (Original) The test device of claim 8, and further comprising an electrical signal generator external to the test device and configured to send an electrical signal to the non-volatile memory to cause storage of the information in the information storage portion of the test device.

10. (Original) The test device of claim 8, wherein the non-volatile memory is configured to also store at least one of a date of manufacture, an operating characteristic, and serial number.

11. (Withdrawn) A method of manufacturing a test device for the detection of a blood analyte comprising:

forming circuitry on a substrate of the test device, the substrate configured for carrying a chemical reagent, and the circuitry including:

a sensor portion associated with the chemical reagent to enable measurement of at least one of a presence and a concentration of a blood analyte;

an information storage portion configured to store information indicative of at least one calibration value of the chemical reagent for calibrating operation of a meter to accurately measure and monitor a test of the blood analyte; and

an input and output arrangement formed on the substrate and in electrical communication with the information storage portion to enable the meter to access the at least one calibration value from the information storage portion; depositing the chemical reagent on the sensor portion that enables detection of the blood analyte; and

storing information in the information storage portion that is indicative of the at least one calibration value of the test device;

wherein no other source of calibration information separate from the information storage portion on the disposable blood test device is used for calibration of the meter;

wherein the information storage portion is electrically connected to a portion of the sensor portion of the circuitry and includes at least one electrically conductive element including a plurality of impedance elements, each impedance element being configured to be physically altered by at least one of punching, drilling, and shorting via fusible link, and a number,  $N$ , of the impedance elements in a determinable order producing characteristic impedance that is indicative of the at least one calibration value of the chemical reagent, the  $N$  impedance elements producing  $2^N$  different possible calibration values; and

wherein the plurality of impedance elements includes at least one of: a plurality of inductors arranged in series or a plurality of capacitors arranged generally in parallel; the plurality of inductors, the plurality of capacitors or a combination thereof all being arranged between a portion of the sensor portion and an input and output conductive element of the information storage portion.

12. (Withdrawn) The method of claim 11, further comprising:

determining a property of the test device, the property of the test device being selected from the at least one calibration value of the chemical reagent, a date of manufacture, an analyte array identifier, and an operating characteristic.

13. (Withdrawn) The method of claim 12, wherein storing information in the information storage portion comprises storing at least one of the at least one calibration value of the chemical reagent, the date of manufacture, the analyte array identifier, and the operating characteristic.

14. (Withdrawn) The method of claim 11, wherein forming the information storage portion of the circuitry comprises forming a thin film circuitry portion on the substrate that defines a non-volatile memory portion, and wherein storing information in the information storage portion comprises sending an electrical signal to the information storage portion to store a value in the non-volatile memory portion.

15. (Cancelled)

16. (Withdrawn) The method of claim 11, further comprising:

measuring the at least one calibration value of the chemical reagent to determine a calibration factor for the test device,

and wherein storing information in the information storage portion comprises altering at least one of the plurality of impedance elements, wherein the number of altered impedance elements is indicative of the calibration factor of the test device.

17. (Withdrawn) The method of claim 16, wherein altering the plurality of impedance elements comprises disabling at least one of the plurality of impedance elements by at least one of physically removing a conductive portion of the impedance element and physically adding a conductive portion to the impedance element.

18. (Previously presented) A single, self-calibrating, disposable test strip comprising:

means for chemically reacting with a blood analyte of a blood sample;

means for sensing, based on the means for chemically reacting, the blood analyte;

means for electrically storing calibration information corresponding to at least one calibration value of a chemical reagent on the disposable test strip for calibrating operation of a meter to accurately measure and monitor a test of the blood analyte; and

means for enabling electrical communication between the information storage portion and the meter by an input and output arrangement formed on the substrate to enable the meter to access the at least one calibration value from the information storage portion;

wherein no other source of calibration information separate from the information storing means on the disposable blood test device is used for calibration of the meter;

wherein the information storing means is electrically connected to a portion of the sensing means and includes at least one electrically conductive element including a plurality of impedance elements, each impedance element being configured to be physically altered by at least one of punching, drilling, and shorting via fusible link, and a number, N, of the impedance elements in a determinable order producing characteristic

impedance that is indicative of the at least one calibration value of the chemical reagent, the N impedance elements producing  $2^N$  different possible calibration values; and

wherein the plurality of impedance elements includes at least one of: a plurality of inductors arranged in series or a plurality of capacitors arranged generally in parallel; the plurality of inductors, the plurality of capacitors or a combination thereof all being arranged between a portion of the sensing means and an input and output conductive element of the information storing means.

19. (Cancelled)

20. (Original) The test strip of claim 18, wherein the means for electrically storing is inseparable from the disposable test strip.

21. (Previously presented) A self-calibrating, disposable blood test device comprising:

a substrate configured for carrying a chemical reagent; and  
circuitry formed on the substrate, the circuitry comprising:

an information storage portion configured to store information indicative of at least one calibration value of the chemical reagent for calibrating operation of a meter to accurately measure and monitor a test of a blood analyte; and

an input and output arrangement formed on the substrate and in electrical communication with the information storage portion to enable the meter to access the at least one calibration value from the information storage portion;

wherein no other source of calibration information separate from the information storage portion on the disposable blood test device is used for calibration of the meter;

wherein the information storage portion is electrically connected to a portion of the circuitry and includes at least one electrically conductive element including impedance elements, each impedance element being configured to be physically altered by at least one of punching, drilling, and shorting via fusible link and a number,

N, of the impedance elements in a determinable order producing characteristic impedance that is indicative of the at least one calibration value of the chemical reagent, the N impedance elements producing  $2^N$  different possible calibration values; and

wherein the plurality of impedance elements includes at least one of: a plurality of inductors arranged in series or a plurality of capacitors arranged generally in parallel.